REMARKS / ARGUMENTS

Claims 1-4, 6, 11 and 12 remain pending in this application. Claims 1-3 have been amended and new claim 13 has been added.

Specification

Applicants note that the substitute specification filed on October 13, 2011 has been entered. Applicants also note that the Examiner cautioned Applicants to use a clearer style or darker word color for struck-through and underlined words in future amendments. This caution of the Examiner is appreciated and Applicants will conform to the Examiner's request in future amendments.

35 U.S.C. § 103

Claims 1, 4, 6, and 11 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Spence et al (U.S. Patent No. 6,540,895). These rejections are traversed as follows.

Patentability of the Claims

The present invention is directed to a microorganism separation device which separates microorganisms contained in a sample solution one by one with high efficiency while the microorganisms remain alive.

By this amendment claim 1 has been amended to delete "sample solution supply means" and substitute therefore - -a pump- - for supplying the sample solution stored within the sample solution reservoir to a first flow path. Claim 1 has further been amended to refer to a - -vibrator- - rather than "a sample solution separating means" with the vibrator being defined as being provided for discharging a detected microorganism together with a sample solution from a termination side of the first flow path in a state where the supply of the sample solution to the first flow path is stopped on the basis of a detection result of the microorganism by the microorganisms sensor. Claim 1 further calls for a plurality of acceptors and that the positional relations between a sample solution discharge portion at the termination of the first flow path and the respective acceptors are moveable relative to each other.

The Spence et al. '895 patent does not disclose a vibrator. In paragraph 6 of the Office Action the Examiner only stated that in Spence "the inlet channel may be connected to a reservoir, which meets the claim limitation of a 'sample solution supply mean'".

Neither does Spence teach that the device therein discharges the detected microorganism together with the sample solution from a termination side of a first flow path in a state where the supply of the sample solution to the first flow path is stopped on the basis of a detection result of a microorganism by a microorganism sensor.

In paragraph 7 on page 3 of the action, the Examiner acknowledges that Spence does not teach that the acceptor comprises a plurality of acceptors and the positional relationship between a sample solution discharge portion at the termination of the first flow path and the respective acceptors is relatively moveable. The Examiner, however, nevertheless says that this is a mere duplication of parts. Applicants' respectfully disagree with the Examiner. The design of Applicants' separation device includes a plurality of acceptors and a sample discharge portion at the termination of a first flow path and respective acceptors are relatively moveable. Such a holding of alleged obviousness is based on impermissible hindsight as a result of the teachings of Applicants' invention. The Examiner has not cited a single reference having this configuration of a plurality of acceptors relatively moveable with respect to a sample solution discharge portion.

With respect to claim 2, this claim has been amended to define that the controller is configured to control the vibrator so that the sample solution that is discharged from the termination side of the first flow path only includes one microorganism. It is a significant feature of the present invention that the microorganisms can be separated one by one as described in the paragraph at page 10, lines 11-23 of the substitute specification.

On page 4 of the action the Examiner only states with respect to claim 2 that Spence teaches an electromagnetic or mechanical switch which meets the claim limitation of a controller configured to control the sample solution separating means.

It is respectfully suggested that this broad teaching does not render claim 2 unpatentable since there is no teaching in Spence of a controller configured to control a vibrator so that the sample solution that is discharged from the termination side of the first flow path includes only one microorganism.

Claim 3 has been amended to recite that the first flow path is coupled with the middle of a second flow path and that the microorganism sensor detects that the microorganisms in a sample solution flow into the second flow path from a termination side of the first flow path and a second pump is provided for supplying a carrier solution. Claim 3 further now calls for the driving of the second pump to be controlled according to the signal of the microorganisms and that the acceptors are disposed on a termination side of the second flow path.

In rejecting claim 3 the Examiner only broadly refers to duplication and rearranging of parts as being *prima facie* obvious. Spence does not teach Applicants' invention as now defined in claim 3 since there is no specific teaching of the structure as now set forth in claim 3.

New claim 13 is identical to claim 3 except that is dependent from claim 2 rather than claim 1 and is patentable for the same reasons as set forth with respect to claim 3.

Claims 4, 6, 11 and 12 are dependent claims and are patentable for the same reasons as advanced for the claims from which they depend as well as for the specific structure set forth therein.

Accordingly, it is respectfully submitted that claims 1-4, 6, 11, 12 and 13 are patentable.

Conclusion

In view of the foregoing, Applicants respectfully request that a timely Notice of Allowance be issued in this case. Please charge any shortage of fees due in connection with the filing of this paper, or credit any overpayment of fees, to Deposit Account 50-1417.

Respectfully submitted,

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